

carboxylic acid copolymer". These amendments remove the ambiguity suggested by the Examiner. Support for the new terms in the claim is found in the written description such as on page 7, lines 25-27, and in original claim 8.

Claim 49 also has been amended to delete the phrase "ethylene-methacrylic acid copolymers" since this term is included in the prior term "ethylene-unsaturated carboxylic acid copolymers."

Claim 52 has been amended to change the phrase "ethylene/unsaturated carboxylic methacrylic acid copolymer" to ethylene/unsaturated carboxylic acid copolymer. Support for this amendment is found on page 8, line 26.

Claims 78-80 have been added to indicate that the multilayer films are unoriented. Support for this amendment is found on page 4, line 34.

II. Claim Objections

Claims 29-37 have been rejected to being dependent on cancelled claims 21, 24 and 25. It is believed that this objection is now moot in view of the cancellation of claims 29-37 which were inadvertently referred to in the preliminary amendment. Applicants apologize for any inconvenience this may have caused the Examiner.

III. Claim Rejections Under 35 USC §112

Claims 49 and 52 have been rejected under 35 USC §112 as being indefinite. Reconsideration of the rejection is requested in view of the amendments to these two claims. It is believed that the claims are no longer indefinite.

IV. Claims Rejections Under 35 USC §103(a)

- (A) Claims 42-46, 52, 54 and 75 have been rejected under 35 USC §103(a) as being unpatentable over Freedman (U.S. 4,946,532).

Reconsideration of this rejection is requested. Freedman states the first skin layer may have controlled surface texture, gloss or matte, but Freedman fails to teach or suggest any level of gloss. This is acknowledged by the Examiner, but the Examiner has

suggested that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a first skin layer in a multilayer thermoplastic film of Freedman with any degree of gloss including the claimed 60° gloss from about 80 or more “depending upon the intended use of the film since Freedman teaches that the first skin layer may have any controlled surface texture, and the first skin layer is made of the same claimed material.”

This rejection should be withdrawn because even though Freedman generally teaches that the skin layers may have the controlled surface texture such as a gloss or matte texture, Freedman does not teach or suggest a skin layer having an initial gloss as presently claimed. There is no teaching, exemplification or suggestion in Freedman '532 of a multilayer facestock, or a combination of a multilayer facestock joined with a layer of adhesive to a release liner wherein the multilayer film has the characteristics specified in the present claims. Freedman may mention gloss, but there is no discussion or suggestion of a multilayer film with a skin layer having an initial 60° gloss of about 80 or more.

It would appear that the Examiner is taking the position that the Freedman skin layer would inherently exhibit the initial gloss value as claimed. Applicants respectfully submit that this feature of the present claims are not “inherent in the Freedman teachings, and, therefore, these claims are not obvious over Freedman. The Examiner has not cited any discussion in Freedman that would suggest that this level of gloss is inherent. Applicants suggest that the Examiner’s position is based solely on the Examiner’s interpretation of Freedman after reading the present application.

As noted in the recent Hunter Douglas Inc. v. Comfortex Corp., 49 USPQ 2d 1785, 1789 (Fed. Cir. 1998).

To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make it clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.... Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

If, however, the disclosure is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the question function, it seems to be well settled that the disclosure should be regarded as sufficient. Citing Continental Can Co. USA Inc. v. Monsanto Co., 20 USPQ 2d 1746, 1749 (Fed. Cir. 1991) (Emphasis added).

The Examiner is requested to reconsider and withdraw the rejections of claims 42-46, 52, 74 and 75 as obvious over Freedman '532 because there is no teaching or indication in Freedman '532 that the multilayer films described therein will contain a skin layer which necessarily has an initial 60° gloss of about 80 or more.

(B) Claims 49, 50, 53 and 54 have been rejected under 35 USC §103(a) as being unpatentable over Freedman '532 in view of McHenry et al (U.S. 4,525,134).

Freedman is applied as above and further teaches that tie layers such as "CXA" "PLEXAR" (ethylene/unsaturated acid copolymer) or other adhesion promoting materials may be inserted between the core layer and skin layers in order to enhance adhesion between the layers. McHenry et al teach that the adhesion between core layers and skin layers can be enhanced either by inserting a tie layer of an adhesion promoting material between two layers, or by adding the adhesion promoting material to the core layer and/or skin layers. (Column 7, lines 4-14). Regarding claim 50, the Examiner has suggested that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.

Reconsideration and withdrawal of the rejection of claims 49, 50, 53 and 54 is requested in view of the deficiencies of the primary reference, Freedman '532. As noted above, Freedman neither teaches, suggests or exemplifies a multilayer thermoplastic signage film of the type presently claimed. In particular, there is no teaching or suggestion or exemplification of a multilayer signage film as presently claimed wherein the thermoplastic skin layer has an initial 60° gloss of about 80 or more. Although Freedman mentions that his skin layers may have a matte or gloss finish, there is no teaching or suggestion of a multilayer film wherein the skin has an initial gloss as presently defined.

As noted above, it is well established that "the mere fact that a certain thing (a minimum 60° gloss reading) may result, from a given set of circumstances, it is not sufficient." Hunter Douglas Inc. v. Comfortex Corp., 49 USPQ 2d 1785, 1789 (Fed. Cir. 1998). Reconsideration is requested.

- (C) Claim 51 is rejected under 35 USC §103(a) as being unpatentable over Freedman '532 in view of Fukushima et al (U.S. 4,542,061).

In claim 51, the core layer is further described as comprising a light stabilizer at a concentration of about 1000 to about 10,000 ppm based on the weight of the core layer. Although Freedman teaches that the core layer may comprise small amounts of various additives such as antioxidants, etc. (Column 4, lines 40-43), Freedman does not mention light stabilizers as additives to the core layer, nor is there any mention of a concentration of 1000 to 10,000 ppm for the light stabilizer. Fukushima et al is relied upon by the Examiner for teaching that light stabilizers may be added to polyolefin core layers and multilayer thermoplastic films at concentrations of 5000 to 20,000 ppm.

The rejection of claim 51 based on the combination of Freedman and Fukushima et al, should be withdrawn for the reasons given above with respect to the deficiencies of the Freedman patent. Even if the teaching of Fukushima et al regarding light stabilizers is combined with the teachings of Freedman, the combination of the references fails to teach, suggest or exemplify a multilayer film as presently claimed wherein the skin layer has a 60° initial gloss of about 80 or more. Accordingly, for the reasons given above, the Examiner is requested to reconsider and withdraw the rejection of claim 51.

- (D) Claims 55-63 are rejected under 35 USC §103(a) as being unpatentable over Freedman '532 in view of McHenry '134 as applied above, and further in view of Fukushima et al (U.S. 4,542,061).

Freedman and McHenry et al have been described and discussed above. Fukushima et al is relied upon for its teaching that a light stabilizer may be added to a

polyolefin core layer and/or skin layer in a multilayer thermoplastic film at a concentration of 500 to 20,000 ppm based on the weight of the core layer. Thus, the Examiner suggests that it would have been obvious to one skilled in the art to have added a light stabilizer to both the core and the skin layers of the combinations of Freedman and McHenry et al.

For the reasons previously given with regard to the other claims, the rejection of claims 55-63 over the combination of Freedman, McHenry and Fukushima et al should be withdrawn since the combination of references does not overcome the deficiency of the teachings of Freedman with respect to the presently claimed invention. Even if the disclosures of the three references are combined, the disclosures fail to teach, suggest or exemplify a multilayer film as described in claims 55-63. There is no teaching or suggestion or exemplification in the primary Freedman reference of a multilayer film wherein the skin layer has an initial gloss of 80 or more, and the teachings in the secondary references do not overcome this deficiency.

(E) Claims 47, 48, 76 and 77 have been rejected under 35 USC §103(a) as being unpatentable over Freedman '532 in view of Bingham (U.S. 3,758,192).

Freedman is applied as above and further teaches that a core layer may have a whitening or coloring agent. The Examiner has acknowledged that Freedman fails to teach that a multilayer thermoplastic signage film may comprise an opacifying layer comprising a white pigment, a black pigment, or a mixture thereof between the core layer and the second skin layer (present claims 47 and 48), or comprises an opacifying layer comprising a white pigment, a black pigment or a mixture thereof between the core layer and the adhesive priming layer (present claim 76 and 77).

Bingham is relied upon for teaching that an adhesive layer 18 behind a binder layer 17 in a multilayer signage film may be pigmented in order to reinforce or compliment the color of the binder layer 17. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to have pigmented an adhesive layer 53 in a multilayer thermoplastic signage film of Freedman with the expectation of reinforcing or complimenting the colored or whitened core layer as taught by Bingham.

Reconsideration and withdrawal of this rejection is requested. Applicants respectfully submit that there is no basis in fact for combining the disclosures of Freedman with Bingham. Bingham relates to reflex-reflective structures containing glass beads and a reflective coating 16 on one side of the glass beads. An adhesive coat 18 is provided over the reflective coat, and Bingham teaches that the adhesive coat may contain pigment materials which reinforce or compliment the color of the reflective coat 16. The rejection based on this combination should be withdrawn since the Examiner has not cited any prior art that would suggest including an opacifying layer between the core layer and the skin layer of Freedman. The only such suggestion is found in Applicants' disclosure. The fact that Bingham may teach that an adhesive containing pigments can reinforce or compliment the color of a reflective coat in a different application is an insufficient basis for suggesting that it would be obvious to incorporate an opacifying layer in Freedman. Even if Bingham is considered as teaching a general principal of a method of enhancing color, there is no suggestion in the art that an opacifying layer may be included in the multilayer films described by Freedman. Accordingly, the rejections of claims 47, 48, 76 and 77 over these combination of references should be withdrawn.

In addition, the rejection should be withdrawn for the reasons given above with respect to the deficiencies of Freedman '532. Even if, for the sake of argument, it would have been obvious to modify Freedman to include an opacifying layer on the basis of the Bingham '192 teaching, the presently claimed multilayer film would not be obvious over the combination because Freedman does not teach, suggest or exemplify a multilayer film as presently claimed which contains a skin layer having an initial 80° gloss of at least 80.

- (F) Claims 64 and 65 have been rejected under 35 USC §103(a) as being unpatentable over Freedman '532 in view of McHenry '134 further in view of Fukushima et al '061 as applied above, and further in view of Bingham '192.

Claims 64 and 65 are dependent from claim 55, and these claims specify that the film of claim 55 further comprise an opacifying layer between the core layer and the second skin layer (claim 55), and that the opacifying layer comprises a white pigment, a black pigment or a mixture thereof. (Claim 65).

The Examiner acknowledges that the combination of Freedman, McHenry et al and Fukushima et al, as applied above, fails to teach a multilayer thermoplastic signage film comprising an opacifying layer between the core layer and the second skin layer. Bingham, is relied upon for its teaching of the use of an adhesive layer 18 behind a reflective layer 16 disposed on glass beads. For the reasons given above with respect to the rejection of claims 47, 48, 76 and 77, Applicants respectfully submit that the rejection of claims 64 and 65 should be withdrawn. The combination of Freedman and Bingham is improper since there is nothing in either prior art which would suggest to one skilled in the art or motivate one skilled in the art to modify Freedman by the addition of an opacifying layer. Bingham et al contains no teaching or suggestion which would suggest to one skilled in the art to modify the multilayer film described by Freedman in the manner suggested by the Examiner. Moreover, even if, for the sake of argument, it would be obvious to combine the teachings of Bingham and Freedman, the combination would still not teach or suggest to one skilled in the art the preparation of a multilayer film as presently claimed having a skin layer with an initial 60° gloss of at least 80.

CONCLUSIONS

In view of the above amendments and remarks, Applicants respectfully submit that the claims which are presently under consideration satisfy the requirements of 35 USC §112 and 35 USC §103(a). Accordingly, the Examiner is respectfully requested to reconsider the rejection of claims 42-65 and 74-77, and to allow these claims as well as newly added claims 78-80. An early action to this effect is requested.

Respectfully submitted,

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APPENDIX

Version with markings showing changes made in claims. Underlining indicates words being added, and brackets indicate words being deleted.

49. (Amended) The film of claim 42, wherein the core layer further comprises at least one second polymeric material selected from ethylene/unsaturated carboxylic [acrylic] acid copolymers, [ethylene-methacrylic acid copolymers,] ionomers derived from sodium, lithium or zinc and an ethylene/unsaturated carboxylic [methacrylic] acid copolymer, and combinations thereof.

52. (Amended) The film of claim 42, wherein the first skin layer is comprised of an ionomer derived from sodium, lithium or zinc and an ethylene/unsaturated carboxylic [methacrylic] acid copolymer.